Contents of Vol. 38

Vol. 38, No. 1

Experimental and numerical study of the swelling of a viscoelastic liquid using the stream tube method and a kinematic singularity approximation
P. André and J.-R. Clermont (Grenoble, France) 1

Wall effect for spheres falling at small Reynolds number in a viscoplastic medium
D.D. Atapattu (Clayton, Australia), R.P. Chhabra (Kanpur, India) and P.H.T. Uhlherr (Clayton, Australia) 31

Analogy between the modelling of pullout in solution spinning and the prediction of the vortex size in contraction flows
M.J.H. Bulters (Geleen, The Netherlands) and H.E.H. Meijer (Eindhoven, The Netherlands) 43

Dissipative behaviour of viscoelastic fluids derived from rheological constitutive equations
H. Braun (Chemnitz, F.R.G.) and C. Friedrich (Freiburg, F.R.G.) 81

Short Communications

A sufficient condition for a positive definite configuration tensor in differential models
M.A. Hulsen (Delft, The Netherlands) 93

Upper and lower bounds for inelastic flows using BEM and FEM
R.I. Tanner (Sydney, NSW, Australia) 101

Book reviews 107

Calendar 111

Vol. 38, No. 2+3

On viscoelastic effects in swirling flows
P.J. Bowen, A.R. Davies and K. Walters (Aberystwyth, U.K.) 113

Strong flows of polymeric liquids. Part 2. Mechanical degradation of macromolecules
A.L. Yarin (Moscow, U.S.S.R.) 127

Examples of supercritical, linearized, viscoelastic flow past a plate
L.E. Fraenkel (Bath, U.K.) 137

Experimental study of the elongational stress of dilute polymer solutions in orifice flows
T. Hasegawa and H. Nakamura (Niigata City, Japan) 159

Numerical simulation of concentration flows using a multi-mode Giesekus model
M.A. Hulsen and J. Van der Zanden (Delft, The Netherlands) 183

Adaptive refinement of a viscoelastic flow problem with the explicitly elliptic momentum equation
R.R. Rao and B.A. Finlayson (Seattle, WA, U.S.A.) 223

Non-linear computational instability, damping and filtering in viscoelastic flow simulations
H. Gong and S.I. Güçeri (Newark, DE, U.S.A.) 247

A two-dimensional approach to the constitutive equation of nematic polymers
P.L. Maffettone and G. Marrucci (Naples, Italy) 273

A numerical study of the flow of a K–BKZ fluid between plates rotating about non-coincident axes
R.X. Dai, K.R. Rajagopal and A.Z. Szeri (Pittsburgh, PA, U.S.A.) 289

Heat transfer, drag reduction, and fluid characterization for turbulent flow of polymer solutions: recent results and research needs
E.F. Matthys (Santa Barbara, CA, U.S.A.) 313

Calendar 343

Subject Index of Vol. 38 345

Author Index of Vol. 38 347

Contents of Vol. 38 349